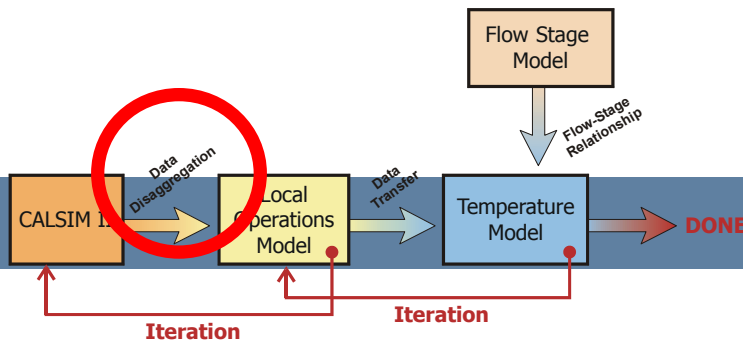


Operations Modeling – Data Disaggregation



What is Data Disaggregation?

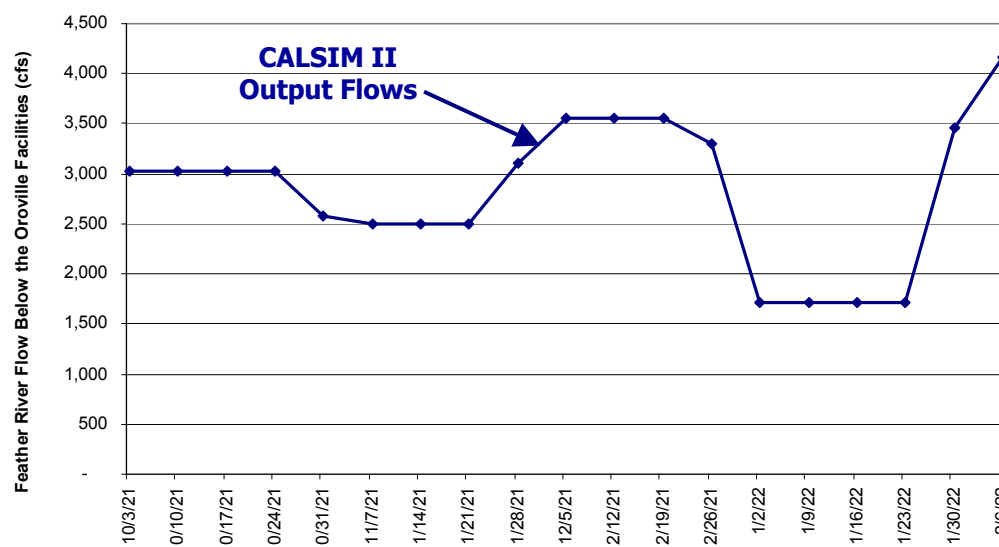
A conversion of monthly CALSIM II output into a smoothed weekly data series for HYDROPS input.

Why Do We Need Data Disaggregation?

- CALSIM II functions on a monthly time-step
- HYDROPS uses weekly data as boundary conditions for hourly optimization.
- The modeling procedure requires a consistent, systematic methodology for converting the CALSIM II output to HYDROPS input.

Disaggregation Process:

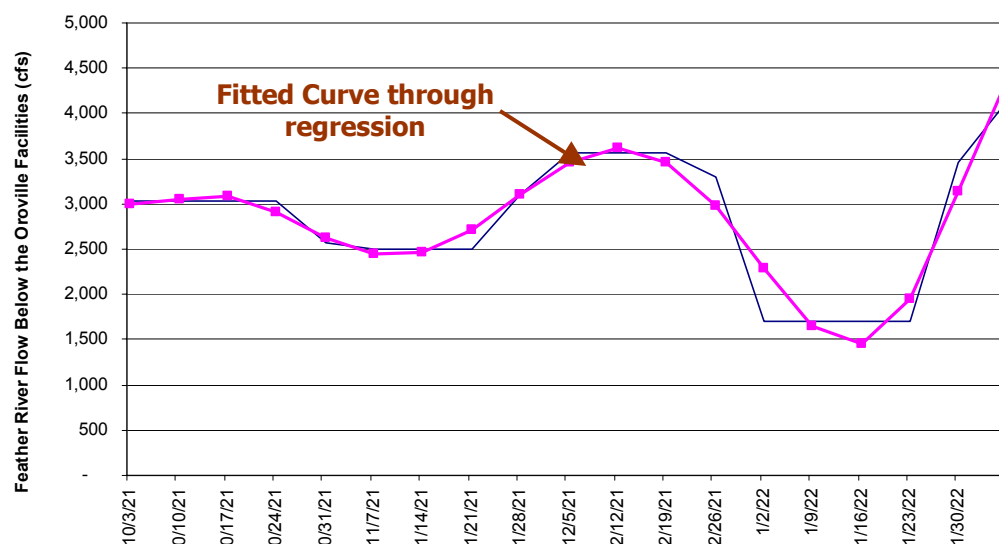
CALSIM II Monthly to Weekly



Generate a “stepped” curve for the weekly Feather River flows

- Assign CALSIM II monthly output for the Feather River below the Oroville Facilities to each day of a month
- Calculate average daily values for each week

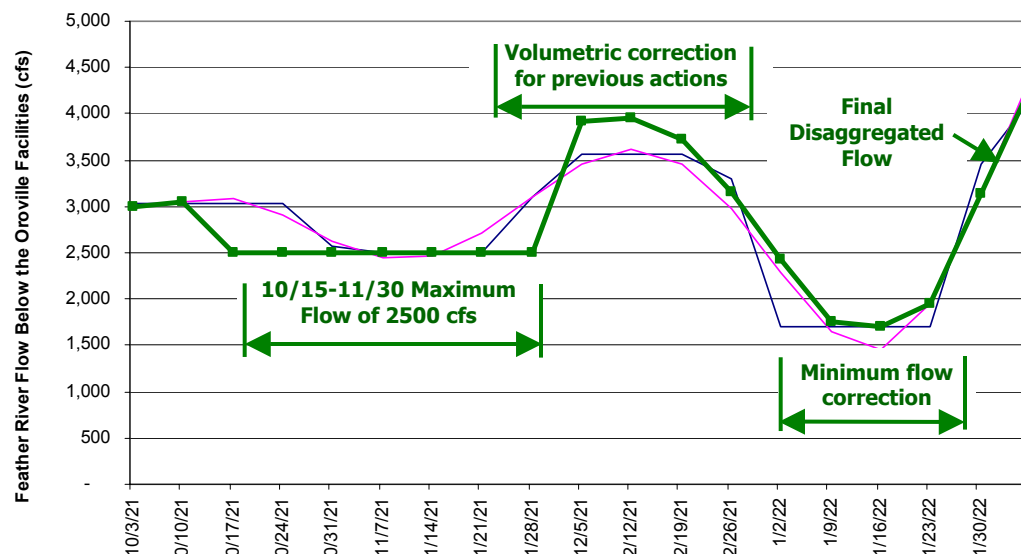
Regression Curve Fitting



Apply data smoothing process to the entire 3,800-week simulation period

- Generate a polynomial curve to represent weekly flows in a period of 15 to 20 weeks
- Use two to three weeks of overlap between regression periods to ensure a smooth transition

Flow Corrections



Correct regression curve to incorporate:

- Flow Requirements
- Ramping criteria for fishery considerations
- Ramping criteria for high flow periods
- Maximum storage consideration
- Removal of volumetric error accumulated through the above actions

Output to HYDROPS

- The Lake Oroville storage and releases are modified to reflect the revised Feather River flows below the Oroville Facilities
- Data series is reviewed and approved by DWR Operations staff
- Data is exported as input file for HYDROPS